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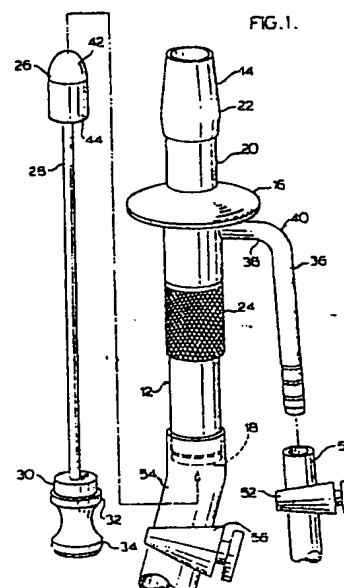
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(54) Colonic Irrigator.

(57) A gravity supplied irrigator for colon cleansing has an open ended cylindrical member with the inner end tapered to accommodate a removable conically headed obturator extending from the inner end with the body of the conical portion bearing against the inner surface of the inner end. A gravity actuated fluid supply to the irrigator is provided by a conduit leading into the cylindrical member intermediate of its ends and the obturator is removable through the cylindrical member in order for the fluid supply to enter the irrigator. The conduit supply is preferably offset in relation to the longitudinal axis of the cylindrical member to provide a swirling action to the entering fluid. The cylindrical member has an outwardly extending circumferential flange intermediate of the inner end and the conduit, which flange limits the insertion of the irrigator.



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otherwise smooth surface of the irrigator during its insertion into the rectum as shown in Figure 2.

The cylindrical member 12 carries an obturator 26 which projects from the tapered inward open end 14 as shown in Figure 2 after insertion into the rectum. As shown in Figure 1, the obturator 26 may be withdrawn from the cylindrical member 12 and for this purpose the obturator is attached to a spindle 28 which traverse the cylindrical member 12. The spindle 28 terminates in an integral collar 30 and when the obturator is in place as shown in Figure 3, the collar is located inside the outward open end 18 of the cylindrical member 12.

The collar 30 has an integral flange 32 which bears against the outward end 18 of the cylindrical member 12 as shown in Figure 3. The flange 32 terminates in a handle 34, conventionally shaped as shown.

The construction of the irrigator is completed by a conduit 36 which enters the cylindrical member 12 adjacent to the dish shaped flange 16, see Figure 1, on the side opposite to the inner open end 14. It is a preferred feature of the invention that the conduit is slightly offset in relation to the longitudinal axis of the cylindrical member 12 as shown in Figures 2 and 5 with the result that the fluid entering the cylindrical member 12 is directed to one side and adopts a spiral, or swirling, path which enhances the cleansing action. The conduit 36 is removably connected to a gravity actuated fluid supply not shown and may be controlled, if necessary, by a valve 52.

The conduit 36 has a substantially vertical portion 38 at its entry into the cylindrical member 12 and the portion 38 is bent normally at 40 so that the conduit 36 leads away to the rear of the irrigator.

The obturator 26 has a conical head 42 extending from a substantially cylindrical body 44 which has a diameter greater than the internal diameter of the tapered inward end portion 14 of the cylindrical member 12. On insertion of the irrigator as shown in Figure 2, the conical head 42 is in bearing relation to the tapered inward end portion 14 while protruding from the cylindrical member 12. This relation provides a smooth transition between the two parts and results in painless entry of the irrigator into the rectum.

The bearing relation referred to above is ensured by locating the flange 32 on the spindle 28 at a position so that on abutment of the flange 32 with the outer end 18 of the cylindrical member 12, the obturator body 44 will always bear against the inner end surface 14 of the cylindrical member 12.

The operation of the irrigator is simple and briefly described. As shown in Figure 2, it is inserted into the rectum and this to a predetermined extent, about 40 mm, which distance is ensured by contact of the dish shaped flange 16 with the body. Prior to insertion of the irrigator, the patient lies on the left side to straighten the sigmoid which is the lower part of the colon, and generally denoted by the numeral 48, while ensuring that the conduit tube 36 is located above the cylindrical member 12. The obturator 26 is then withdrawn and the conduit tube 36 is connected through a flexible tube 50 provided with the control valve 50. Next, the open outward end 18 is

connected to a conduit 54 provided with a stop valve 56, which conduit 54 leads to waste. The supply of fluid commences with the opening of the valve 52 and this continues until the pressure is built up to the extent that it should be relieved at which time the valve 56 is opened. When the flow of waste fluid ceases, the valve 56 is closed and the progressive cleansing process is resumed.

It will be appreciated that the waste fluid can never enter the conduit 36 whether the valve 50 is open or closed as the pressure is always against the emerging fluid. This is of great value as it minimises the possibility of contamination of the incoming cleansing fluid.

The location of the supply tank to provide sufficient pressure is a matter for experiment as is also the drop necessary for the waste to flow away on opening the valve 56. The diameter of the widest part 22 of the tapered portion 14 of the cylindrical member 12 is about 15mm for use on patients who have no rectal problems whilst the preferred offset of the conduit 36 is about 3° and this is sufficient to provide the spiralling action of the incoming cleansing fluid which may only be warm water.

The provision of the normally disposed bend at 40 on the conduit 36 which directs the latter rearwardly not only provides for better handling but also reduces the chance of contamination of the incoming supply by the outgoing fluid.

Claims

1. A gravity fluid supplied irrigator for colon cleansing comprising a cylindrical member, open inward and outward ends to said cylindrical member, said inward end being tapered, a removable obturator bearingly located in said inward tapered end and projecting therefrom, means secured to said obturator extending through said cylindrical member to remove said obturator through said outward end after said inward end has been inserted into the rectum, a conduit removably connected to a gravity actuated fluid supply, means on said cylindrical member to limit insertion of said inward end into the rectum, said conduit entering said cylindrical member outward of said limiting means, said conduit being operable on removal of said obturator in order to supply fluid into said cylindrical member and then into the colon for cleansing thereof and removable control means securable to said outward end to permit egress of fluid after sufficient pressure has been built up in the colon.

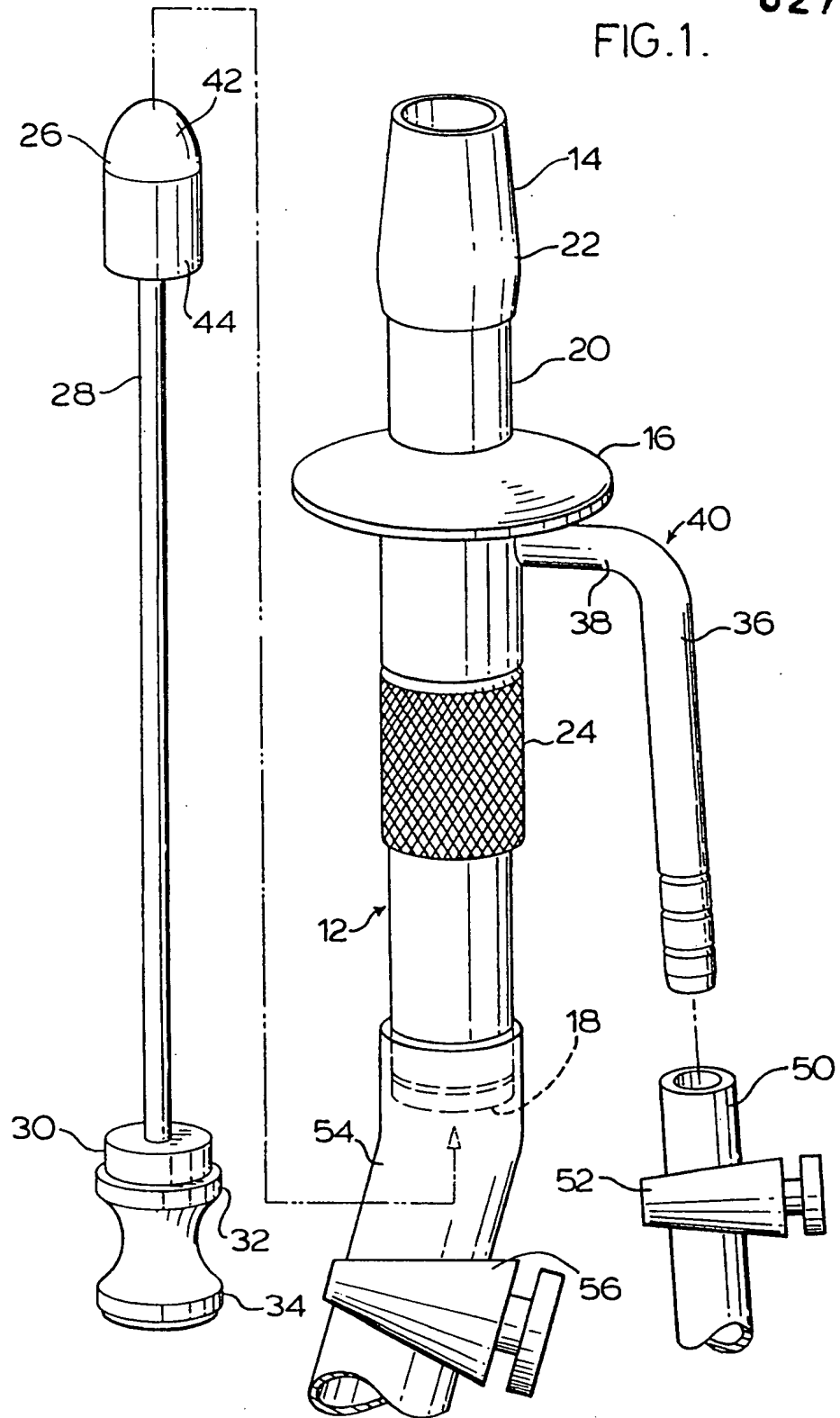
2. An irrigator according to Claim 1 where said conduit is offset in relation to the longitudinal axis of said cylindrical member in order to induce a spiral action to the entering fluid.

3. An irrigator according to Claim 2 wherein said offset is about 3°.

4. An irrigator according to Claims 1 and 2 wherein said means for limiting insertion of said inward end is an outwardly extending circum-

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FIG.1.



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FIG. 3.

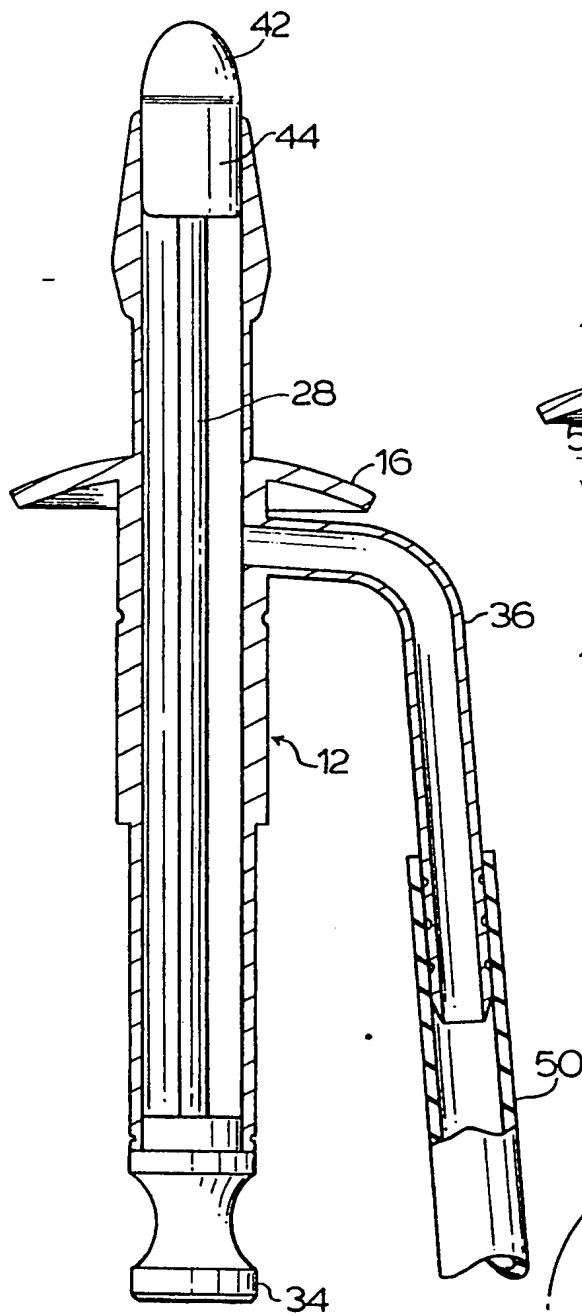


FIG. 4.

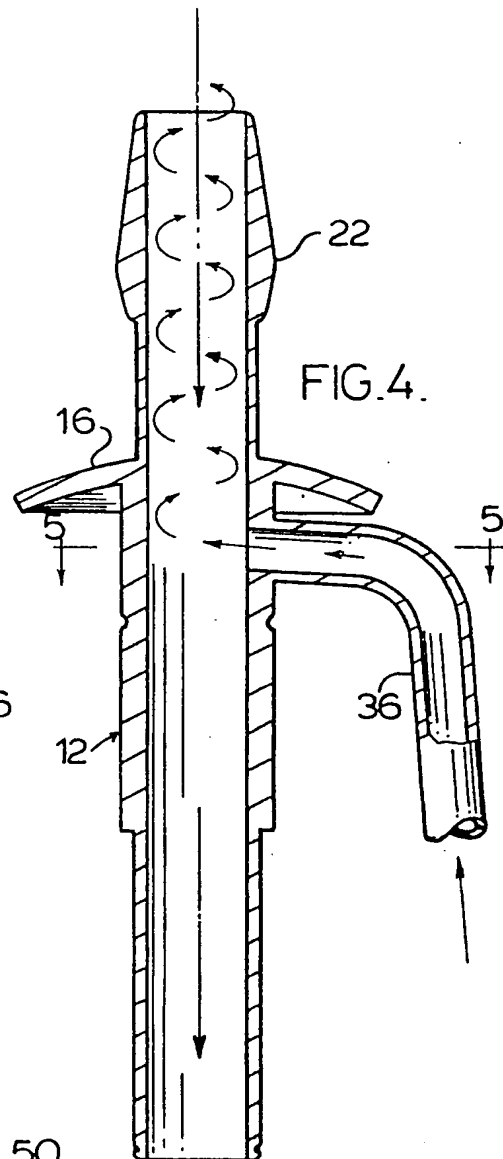
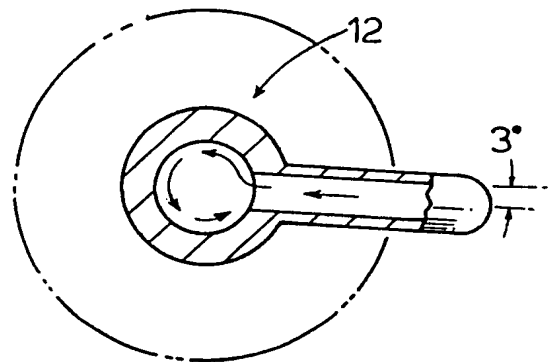


FIG. 5.



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(54) Colonic Irrigator.

(57) A gravity supplied irrigator for colon cleansing has an open ended cylindrical member (12) with the inner end (14) tapered to accommodate a removable conically headed obturator (26) extending from the inner end (14) with the body of the conical portion (42) bearing against the inner surface of the inner end (14). A gravity actuated fluid supply to the irrigator is provided by a conduit (36) leading into the cylindrical member (12) intermediate of its ends (14,18) and the obturator (26) is removable through the cylindrical member (12) in order for the fluid supply to enter the irrigator. The conduit (36) supply is preferably offset in relation to the longitudinal axis of the cylindrical member (12) to provide a swirling action to the entering fluid. The cylindrical member (12) has an outwardly extending circumferential flange (16) intermediate of the inner end (14) and the conduit (36), which flange (16) limits the insertion of the irrigator.

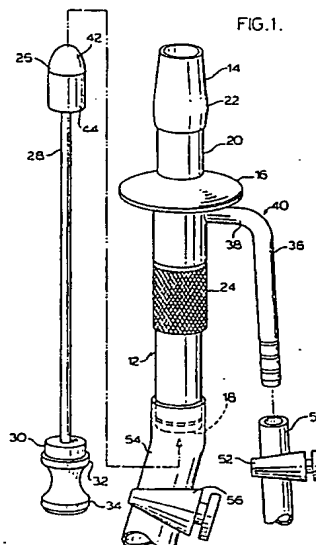


FIG. 1.

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